



PLACER COUNTY

AIR POLLUTION CONTROL DISTRICT

11464 B Avenue, Auburn, CA 95603 • (916) 889-7130 • FAX (916) 889-7107

Richard G. Johnson, Air Pollution Control Officer

June 19, 1997

MEMORANDUM

COPY

TO: File

FROM: Don Holkestad *Don Holkestad*

SUBJECT: **ERRATA FOR PRESENTATION FOR BOARD HEARING ON JUNE 19, 1997**

CONCUR: *[Signature]*
Richard G. Johnson, Air Pollution Control Officer

Amended Rule 212, Storage of Organic Liquids (Resolution 97-17)

Page 1, Table of Contents:

Section 101 "Description" is changed to "Purpose" to agree with the text on Page 3

New Rule 246, Natural Gas-Fired Water Heaters (Resolution 97-20)

Page 5, Section 401, Compliance Schedule:

Effective date is changed from October 1, 1997 to January 1, 1998. This new date is tentative, pending Board action at the hearing.

Page 5, Section 403, Manufacturers' Labeling Requirement:

The following sentence is added at the end of the existing paragraph:

A label stating "Certified per South Coast Air Quality Management District, Rule 1121" or equivalent language, will meet the shipping carton label requirement of this section.



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MEMORANDUM

TO: Board of Directors, Placer County Air Pollution Control District

FROM: Donald M. Holkestad, Air Quality Engineer *DmH*

AGENDA DATE: June 19, 1997

SUBJECT: Adoption of New Rule 246, Natural Gas-Fired Water Heaters (Public Hearing)

Action Requested:

- 1) Conduct a Public Hearing regarding Rule 246, Natural Gas-Fired Water Heaters, of the District Rules and Regulations.
- 2) Adopt Resolution #97-20, thereby adopting Rule 246, Natural Gas-Fired Water Heaters.

Background:

The proposed rule is included as a Nitrogen Oxide (NO_x) control measure in the Sacramento Area Regional Ozone Attainment Plan, which was adopted by the Board on December 20, 1994. NO_x emissions are Ozone precursors. The Attainment Plan was adopted in response to the 1990 Amendments to the Federal Clean Air Act (CAA), which requires areas designated "serious" for Ozone by the United States Environmental Protection Agency (USEPA), to submit a State Implementation Plan (SIP) revision.

Discussion:

The first low NO_x water heater rule in California was adopted by the South Coast AQMD, in 1982. Subsequently, similar rules were adopted by the Ventura County APCD, Bay Area AQMD, San Joaquin Valley Unified APCD, Yolo-Solano AQMD, San Diego County APCD and Sacramento Metropolitan AQMD. The South Coast AQMD also adopted a NO_x standard for mobile home water heaters. The proposed Rule 246 contains the same standards, and will maintain rule consistency with the other nearby Districts. El Dorado County APCD is planning to adopt a similar rule, and Yolo-Solano is planning to amend their rule to be consistent with the other districts.

Summary of Proposed Rule:

- 1) This Rule applies to anyone in Placer County who manufactures, distributes, offers for sale, sells or installs any natural gas-fired water heater with a rated heat input capacity less than 75,000 British Thermal Units per hour (BTU/hr) for use in the District.

- 2) Larger heaters (75,000 BTU or larger); heaters used for recreational vehicles, swimming pools and hot tubs; and heaters that use any fuel other than natural gas, are exempt from all provisions of this rule.
- 3) A NO_x emission standard of 40 nanograms per joule of heat output (50 nanograms for mobile home water heaters), and District certification, are required.
- 4) Detailed certification and labeling requirements are included. Certification by South Coast AQMD is an allowable alternative to certification by Placer APCD

Emission Reduction Impact:

The 1994 Sacramento Area Regional Ozone Attainment Plan estimates that the implementation of the control measures in this rule will result in an Area reduction of 0.50 tons per day (TPD) in NO_x emissions, by the year 2005. Placer County's informally allocated "portion" of this reduction is 0.065 TPD per day (130 pounds/day). Beginning with the effective date of this rule, October 1, 1997, replacement and new construction needs may utilize only the lower NO_x complying water heaters.

Fiscal Impact:

To Industry:

There should be little or no impact upon Industry manufacturers, since all or most of them already supply complying units for sale in the State. Compliance with the conditions in Rule 246 began in Southern California several years ago. The 3½ months after adoption before the effective date, will allow time for suppliers and dealers to move in complying units to replace any non-complying units that may be in stock.

To District:

No significant fiscal impact upon the District, for this rule, is expected.

Public Outreach:

The Board Hearing to consider the adoption of Rule 246 was noticed in the Auburn Journal and the Roseville Press-Tribune on May 16, 1997. In addition, the hearing notice, and an advisory memo explaining the proposed rule were mailed to 13 suppliers in the County and also to the Gas Appliances Manufacturing Association, in Arlington, Virginia.

**PLACER COUNTY
AIR POLLUTION CONTROL DISTRICT**

STAFF REPORT

RULE 246

NATURAL GAS-FIRED WATER HEATERS

PROPOSED RULE

June 2, 1997

BACKGROUND

- The proposed rule is included as a Nitrogen Oxide (NO_x) control measure in the Sacramento Area Regional Ozone Attainment Plan, which was adopted by the Board on December 20, 1994. NO_x emissions are Ozone precursors. The Attainment Plan was adopted in response to the 1990 Amendments to the Federal Clean Air Act (CAA), which requires areas designated "serious" for Ozone by the United States Environmental Protection Agency (USEPA), to submit a State Implementation Plan (SIP) revision.
- NO_x control technology for natural gas water heaters has been in use since 1982, and is well-established among major water heater manufacturers. Low-NO_x water heaters meeting the proposed NO_x emission limit of 40 nanograms per Joule of heat output are readily available in California. These standards may be achieved by either of two methods. One method is to use low-NO_x burners, designed to lower the temperature inside the combustion chamber by using more efficient heat transfer. A second method is to design a higher energy-factor heater, designed to minimize the consumption of fuel by (1) increased insulation, (2) the use of an electric powered lighter in lieu of a continuously burning pilot light and (3) recirculation of the hot flue gases.
- The first low NO_x water heater rule in California was adopted by the South Coast AQMD, in 1982. Subsequently, similar rules were adopted by the Ventura APCD, Bay Area AQMD, San Joaquin Valley Unified APCD, Yolo-Solano APCD, San Diego APCD and Sacramento Metropolitan AQMD. The South Coast AQMD also adopted a NO_x standard for mobile home water heaters. The proposed Rule 246 contains the same standards, and will maintain rule consistency with the other nearby Districts. El Dorado APCD is planning to adopt a similar rule, and Yolo-Solano is planning to amend their rule to be consistent with the other districts.
- Although the requirement for this rule is based on the Sacramento Area Regional Ozone Attainment Plan, the staff is recommending that the proposed rule be applicable for all of Placer County. A survey of several local distributors in Roseville, Auburn and Truckee indicated that most major brands of natural gas water heaters sold in Placer County, already meet the proposed standards.

DISCUSSION OF PROPOSED RULE

Purpose:

This section (101) states that the purpose is to limit the emission of nitrogen oxides from natural gas-fired water heaters.

Applicability:

- Section 102 states that the Rule applies to anyone in Placer County who manufactures, distributes, offers for sale, sells or installs any natural gas-fired water heater with a rated heat input capacity less than 75,000 British Thermal Units per hour (BTU/hr) for use in the District.

Exemptions:

- Section 103 exempts larger heaters (75,000 BTU or larger); heaters used for recreational vehicles, swimming pools and hot tubs; and heaters that use any fuel other than natural gas.

Definitions:

- Thirteen key definitions are included. Definitions of Heat Output (Section 203) and Storage Tank Capacity (Section 212) contain formulas for calculation.

Standards:

- A NO_x emission standard of a maximum of 40 nanograms per joule of heat output, and District certification, are required, per Section 301.1. Section 301.2 refers to the requirement that natural gas-fired water heaters for mobile homes have a standard of 50 nanograms per joule of heat output, and District certification.

Administrative:

- The effective date for compliance is October 1, 1997, to allow lead time for any supplier who may currently have non-compliant heaters in stock. (Section 401)
- Detailed certification and labeling requirements are included. Certification by South Coast AQMD is an allowable alternative to certification by Placer APCD. (Sections 402 and 403)

Monitoring and Records:

- Manufacturers are required to retain test reports and certification records for as long as a heater is offered for sale or sold in the District, but for no less than three years. (Section 501)
- The test method in Section 502 is the South Coast AQMD Protocol that is the current accepted test method referenced in the Standards in this Rule.

<u>FINDING</u>	<u>DEFINITION</u>	<u>REFERENCE</u>
Authority	The District is permitted or required to adopt, amend, or repeal the rule by a provision of law or a state or federal regulation.	California Health and Safety Code, Section 40702 and Section 41010; 1990 Federal Clean Air Act, Section 110(a)(2)(H) and Section 182(d).
Necessity	The District has demonstrated that a need exists for the rule, or for its amendment or repeal.	It is necessary for the District to adopt this rule in order to fulfill the requirements of the Federal Clean Air Act Amendments of 1990.
Clarity	The rule is written or displayed so that its meaning can be easily understood by the persons directly affected by it.	There is no indication at this time that the rule is not written in such a manner that the person affected by the rule can easily understand it.
Consistency	The rule is in harmony with, and not in conflict with or contradictory to, existing statutes, court decisions, or state or federal regulations.	The District has found that the rule is consistent with existing state and federal guidelines.
Non-duplication	The rule does not impose the same requirements as an existing state or federal regulation, unless the District finds that the requirements are necessary or proper to execute the powers and duties granted to, and imposed upon the District.	There does not exist any state or federal rule or regulation that applies to surface preparation and cleanup solvents operations within the District.
Reference	Any statute, court decision, or other provision of law that the District implements, interprets, or makes specific by adopting, amending, or repealing the rule. An example of this would be the 1988 EPA State Implementation Plan call to revise District rules.	This rule is being proposed because of the requirements of the Federal Clean Air Act Amendments of 1990.